THE EXTENSION HORTICULTURIST

June 1, 1921.

Fruit prospects the country over have not materially improved during the past month, in fact, Jack Frost played a "return engagement" to Washington, Oregon, Wisconsin, Michigan, New York and the New England States and did considerable additional damage.

While many growers may not see their way clear to keep up cultivation and spraying without a crop in prospect, this is a time when every horticulturist should encourage growers to move forward and give their trees the proper attention. This will be a good season to do reshaping and special pruning of the trees. Some changes in plans for extension work may be necessary, but the general plan should be adhered to so far as possible.

Office of Horticultural and Pomological Investigations
and States Relations Service Cooperating.
U. S. Department of Agriculture,
Washington, D.C.

Fruit Prospects.

Last month we asked the state horticultural extension workers to give us a report of fruit prospects in their states based on the conditions as they existed May 20th. While we have only heard from a limited number, sufficient information has been obtained to enable us to make a fairly accurate report.

Mr. C. D. Matthews, State Horticulturist, Raleigh, North Carolina, advises that the April and May freezes in North Carolina have resulted in injury to the apple crop , ranging from 50 per cent to total destruction. Many apple orchards in North Carolina reporting only partial injury will produce a fair crop. Injury to the peach crop in North Carolina was general, with the exception of the commercial crop in the sand-hill region, where there was little or no injury and prospects for a crop of over 500 carloads.

From Arkansas comes the report that the fruit throughout the northern part of the State has been greatly damaged and in many sections totally killed. In a small section of the southwestern part of the State which includes the Bert Johnson orchards, there is a splendid crop of peaches and the Johnson orchards will produce around [illegible] 1,000 carloads. East Texas has a fair crop of peaches with prospects for 800 to 1,000 carloads.

Georgia has a fair peach crop and the early varieties are now moving to market.

Prof. R. S. Herrick, Secretary of the Iowa State Horticultural Society, under date of May 1st, places the estimate on apples at 58 per cent of a crop; American plums 40 per cent; cherries 35 per cent; pears 16 per cent; grapes 73 per cent; strawberries 75 per cent. Prof. Herrick states that it will be difficult to tell just what the prospects are as it is possible that the June drop will be quite heavy. He also states that it will pay to put on a good calyx spray on the apples whether or not there is much of a crop. The spray will help greatly to insure a good crop of fruit buds for next year, at the same time, help to eliminate disease and insect pests for another year.

Prof. W. S. Brock, Extension Pomologist in Illinois, under date of May 10th advises that the best crop of fruit in Illinois is in the Ozark section in the extreme southern section of the State, where it is reported that tree fruits as a whole will average 30 per cent of a normal crop. Jonathan, Winesap, Ingram and Yellow Transparent are the best. The northern part of the State will probably not exceed 10 per cent of a normal apple crop. Our previous report on pears, peaches, plums and cherries for the whole State was correct, namely, that such fruits are a total failure.

Prof. R. B. Cruickshank of Ohio reports as follows:

"With the exception of a narrow fringe area along Lake Erie, there will be no peaches in the State. My information is that the Ottawa County section will run from 25 to 50 per cent of a crop. There will not be more

than 5 per cent of both sour and sweet cherries. Plums will not be over 5 per cent and pears will be about 10 per cent. The important apple section of southern Ohio will have less than 10 per cent, mainly of Rome Beauty. Beginning at a point about one quarter of the way north from the Ohio River, Rome Beauty shows a 50 per cent set, with a few other varieties carrying anything. From the central part of the State north the situation gradually improves, until in the northern counties there is a 50 to 60 per cent prospect. Prof. Cruickshank places the State as a whole at about 25 per cent of a crop, as compared with last year's crop of one million barrels.

Mr. C. G. Vinson, Extension Pomologist of Pennsylvania reports that in his opinion there will be from 15 to not exceeding 25 per cent of a normal fruit crop in the State. Cherries are almost totally killed, as are apricots and Japanese Plums. Other plums will have a pretty fair crop. In some places peaches are in good shape, but for the most part they are killed, the southern part of the State being hit the hardest. North of a line running east and west through Pittsburgh, apples are in fairly good condition. Rome Beauty seem to be setting fairly well, also some of the earlier varieties. A few varieties are showing considerable secondary bloom.

Prof. G. W. Peck, Extension Pomologist of New York, states that strawberries and grapes suffered more or less from the frosts that occurred on May 16th and 17th. Strawberries are killed in some sections at least 50 per cent. Outside of the commercial grape districts grapes were more or less injured. The late frost did not seem to have any serious effect on apples, pears or peaches which promise a good crop. Both sweet and sour cherries were practically killed in earlier frosts.

Prof. W. H. Darrow, Specialist in Fruit Growing for Connecticut, under date of May 21st states that "It is too early to give a satisfactory estimate of the fruit prospects in Connecticut. On the whole the outlook for peaches and apples is good, although this will vary in different sections of the State. Certain varieties, like the McIntosh, have set well in some sections, but are dropping in others. Early peaches promise well and Elbertas have set well in some localities and light in others. Mr. Darrow says that on the whole Connecticut promises to have as good fruit crop as any other New England State.

Prof. Close visited Massachusetts a few days after the frost which occurred the middle of May and reports a fair prospect for peaches and apples.

In New Jersey the prospect now is for about 15 per cent of a crop of apples. There is no crop of peaches, but a few orchards carry enough scattering fruits to make it worth while to spray. Pears are a little better in spots than peaches, some few trees are well loaded, but most of them are barren.

While as already stated the general fruit prospects have not improved during the past 30 days, yet there seems to be a considerable supply of fruit in sight and unless the June drop is heavier than usual, there will be a fair

crop of peaches and apples in many sections. Cherries and Japanese Plums, however are pretty badly killed. It is extremely important that the fruit that remains upon the trees be well cared for and thoroughly sprayed to protect it from insect and disease injury.

During the month of May Prof. Close visited
Pennsylvania, New York, Massachusetts and New Jersey.

Mr. C. G. Vinson began fruit work in Pennsylvania October 1st last and up to the middle of February spent most of the time in becoming acquainted with county agents and fruit districts, in making farm visits to give advice on orchard management, in addressing farm organizations, and in judging fruit exhibits at fairs and fruit shows. He has conducted a vigorous pruning campaign this spring and has started some orchard fertilizer work. He will push the organization of cooperative fruit grading and packing associations, and get the permanent pruning, fertilizing, and cover crop work organized this season. Owing to a change in policy the fruit specialist does not now do any spraying work.

Mr. W. B. Nissley began truck crop demonstration work in Pennsylvania on August 1, 1919. His major features are seed adaptation and soil improvement. His minor features are cold frame soil sterilization, green house fertilizer tests, tomato pruning for early yield, grading and packing tomatoes for local curb markets, and the building of farm storage cellars.

The seed improvement work is being done with cabbage, tomatoes and sweet corn. Seeds from a dozen sources are used with Copenhagen Market, Early Jersey Wakefield and Danish Ballhead cabbage. Last year the best strains of seed produced, according to Mr. Nissley's report, as much as $400.00 per acre more than the poor strains. About 500 pounds of the best strains of cabbage seed have been distributed this year and there are 21 cabbage demonstration plots.

The soil improvement work includes the use of commercial fertilizers and the use of cover crops where humus maintenance is a problem. In sterilizing cold frame soil with formaldehyde the lettuce drop was prevented while untreated frames had 50 to 80 per cent drop.

In New York, Mr. Peck has recently succeeded Prof. R. W. Rees in charge of the fruit extension work. Fifteen 5-year pruning demonstrations were started this year and 15 more will be started next year. Apple grading and packing demonstrations to explain the requirements of the State law will be given. Bridge and top-grafting, fruit thinning, and home orchard improvement are being pushed. The great big piece of work in New York is the organization of the cooperative fruit packing associations to improve the grading and packing of apples, peaches, pears and grapes. Last year the following amounts of different fruits were packed and it was all sold. In some cases association apples brought 35¢ more per barrel than the same grades packed by non-members. Apples 350,000 barrels; peaches 200,000 bushels; pears 65,000 bushels; grapes 50,000 baskets.

In Massachusetts, Mr. R. A Van Meter is getting good results from the permanent demonstration apple orchards. The one visited on this trip was planted in 1914 and by the end of the sixth year had, by the use of intercrops and the fruit produced, paid all expenses and $250.00 more. This orchard covers 6 acres and most of the trees are McIntosh, Baldwin and Wagener. Five small fruit gardens have been started. The past spring has been a very busy one in pruning and spraying. Various orchard operations, such as control of apple tree borer, protection of trees from mice, thinning fruit, the use of fertilizer, lime and cover crops, and orchard renovation, are being pushed. Dusting to control the strawberry weevil has also been done. Considerable time has been given to extension schools and to fruit exhibits.

Mr. W. R. Cole does college work in January, February and March and devotes the rest of the year to demonstrations in the storage and manufacture of horticultural crops. His main lines of work are farm, home, and cooperative storage, by-products manufactures, home food preservation and use of fruit as food. Several storage cellars have been completed and others are in process of erection. Mr. Cole is at present exceedingly busy demonstrating the making of jams and jellies and the canning of fruits and vegetables, also in training local leaders who will carry on the work in the communities.

In New Jersey, Mr. Mason's outstanding results at present are from fall and spring use of bordeaux to control peach leaf curl and the use of paradichlorobenzene (P D B) to control the peach borer. There are 36 peach borer demonstrations on 4,000 trees on different kinds of soil. The use of one-half ounce of (P D.B) per tree is practically as effective as one ounce. This material is used only on trees six years old or older. The following results were supplied by Mr. Mason:

131 trees treated with one ounce per tree had 40 borers or an average of .3 borer per tree.

108 trees treated with one-half ounce per tree had 56 borers or an average of .52 borer per tree.

131 trees not treated had 1,154 borers or an average of 8.8 borers per tree.

A few untreated trees had 30 or more borers each. This material may be purchased from the Hooker Electric Company, New York City, Interstate Chemical Company, Jersey City, New Jersey, and Rochester Germicide Company, Rochester, New York.

The other work such as pruning, spraying, use of fertilizers, cover crops, etc., is being continued as usual.

Prof. R. W. Rees has left the extension fruit work at Cornell University and has become chief of the operating department of the Western New York Fruit Growers' Cooperation with headquarters at 521 Cutter Building, Rochester, New York. Prof. Rees was largely instrumental in organizing the various local cooperative fruit associations as well as the state association with which he is now associated.

Prof. F. E. McCall has resigned as extension fruit specialist in South Dakota to accept the position of general manager of the South Dakota Potato Growers' Cooperative Exchange. Prof. McCall helped organize this Exchange and has been of most valuable assistance to the potato growers of his state.

Mr. William C. Hall, who for the past two years has served as special extension agent for the District of Columbia, has resigned to accept commercial secretary work at Lufkin, Texas. Mr. Hall has done splendid work in organizing the agricultural interests of the District and the best wishes of the Washington office go with him to his new line of work.

Mr. Beattie visited Massachusetts, Connecticut and Virginia during the past month. In Massachusetts, Prof. Tompson is conducting his work more and more through the county agents and is getting splendid results. Very few trucking centers call for so technical a type of demonstration work as the Boston district and Prof. Tompson is certainly meeting the problems squarely and effectively. The use of superior strains of garden seeds alone has meant thousands of dollars of added income to the growers.

In Connecticut, Mr. A. E. Wilkinson is putting on a number of seed strain demonstrations under the supervision of the county agents. Arrangements have been made for the holding of several field meetings during the summer, these to be held on the farms of the cooperators.

Fruit extension work in the State of Virginia has been hard hit by the almost total loss of this year's fruit crop. Prof. Ralston, under whose direction the work is conducted advises, however, that the general orchard management and most of the spray work will be continued through the summer. Some very effective demonstrations have been held during the spring months in the matter of saving apple trees that were broken down during a severe sleet storm. As many as 15 to 20 bolts and braces were used in rehabilitating some of the trees. The method was taught the leaders and they in turn carried the work throughout the communities.

Beginning July 1st, Mr. A. G. Smith, who has been doing vegetable work in Mississippi, will take charge of the vegetable extension work of the State of Virginia with headquarters at the College, but cooperating with Prof. T. C. Johnson, Director of the Virginia Truck Experiment Station, who has recently been made subject-matter head of the vegetable garden work for the College.

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Giving service is the object of this office and we try to handle all requests for special information, bulletins, etc., as promptly as possible. Sometimes "the man who knows" is in the field or files must be searched for the information and some time is lost in getting it. During the coming year we are going to try to plan our travel and work a little more definitely and to keep the State workers informed of our plans through the "Extension Horticulturist."

W. R. Beattie, Extension Horticulturist.

C. P. Close, Extension Pomologist.